the box

# MBA75W MKII

## mobile PA system

th•mann
MUSIC IS OUR PASSION

user manual

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# 1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

## 1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

| | |
|---|---|
| Download | This manual is also available as PDF file for you to download. |
| Keyword search | Use the search function in the electronic version to find the topics of interest for you quickly. |
| Online guides | Our online guides provide detailed information on technical basics and terms. |
| Personal consultation | For personal consultation please contact our technical hotline. |
| Service | If you have any problems with the device the customer service will gladly assist you. |

## 1.2 Notational conventions

This manual uses the following notational conventions:

**Letterings**

The letterings for connectors and controls are marked by square brackets and italics.

**Examples:** *[VOLUME]* control, *[Mono]* button.

**Displays**

Texts and values displayed on the device are marked by quotation marks and italics.

**Examples:** *'24ch'*, *'OFF'*.

**Cross-references**

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See *'Cross-references' on page 6*.

## 1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

| Signal word | Meaning |
|---|---|
| **DANGER!** | This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided. |
| **CAUTION!** | This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided. |
| **NOTICE!** | This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided. |

| Warning signs | Type of danger |
| --- | --- |
| | Warning – high-voltage. |
| | Warning – danger zone. |

# 2 Safety instructions

**Intended use**

This device is intended to be used in a sound reinforcement system. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

**DANGER!**

**Danger for children**

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

**DANGER!**

**Electric shock caused by high voltages inside**

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

**DANGER!**

**Electric shock caused by short-circuit**

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

**CAUTION!**

**Possible hearing damage**

The device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use sufficient ear protectors.

**NOTICE!**

**Risk of fire**

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.

**NOTICE!**

**Power supply**

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

**NOTICE!**

**Risk of fire due to incorrect polarity**

Incorrectly inserted batteries may destroy the device or the batteries.

Ensure that proper polarity is observed when inserting batteries.

**NOTICE!**

**Possible damage by leaking batteries**

Leaking batteries can cause permanent damage to the device.

Take batteries out of the device if it is not going to be used for a longer period.

**Notes on radio transmission**

- This equipment uses a frequency range that is free of charge and registration within the European Union.
  For more information, please visit: *http://www.thomann.de*.
- When operating, make sure that transmitter and receiver are set to the same channel.
- Never set more than one transmitter to the same channel.
- Make sure that no metal objects are located between transmitter and receiver.
- Avoid interference by other radio and in-ear systems.

# 3 Features

The mobile PA system is characterized by the following features:

- Compact all-in-one system
- Mains and battery operation for maximum flexibility
- 8" wide range speaker with integrated tweeter
- Output power: 75 W RMS
- Frequency response 50 Hz … 18 kHz ± 3 dB
- Integrated UHF receiver for the supplied UHF wireless microphone, 16 channels selectable
- Built-in cassette recorder, CD player (MP3 playback), USB port and SD card slot
- Infrared remote control
- 2 MIC inputs (XLR and 1/4" jack), 2 line inputs (RCA and 1/4" jack)
- 1 line out, 1 speaker out
- Plastic housing with tripod flange, carrying handle and casters

# 4 Installation and starting up

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

**NOTICE!**

**Possible property damage by magnetic fields**

Loudspeakers produce a static magnetic field. Therefore, maintain an appropriate distance to devices that can be adversely affected or damaged by an external magnetic field.

## 4.1 Battery operation

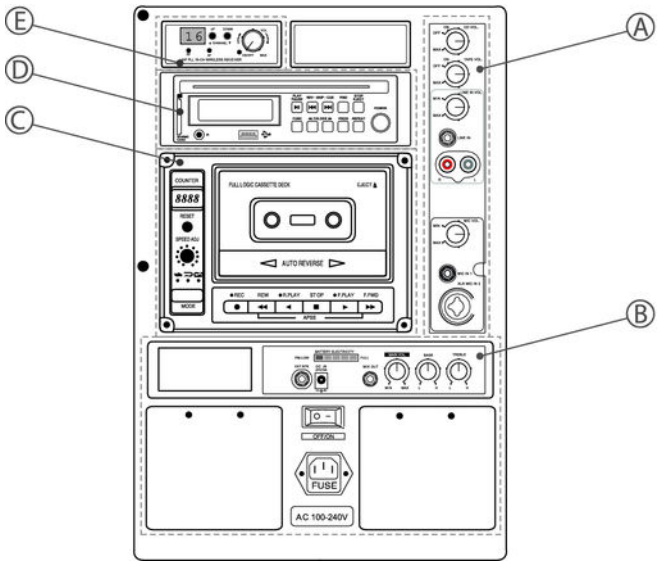
You can also operate the device independent of the mains power supply via the two built-in rechargeable lead gel batteries (12 V, 5 Ah).

## 4.2 Microphone

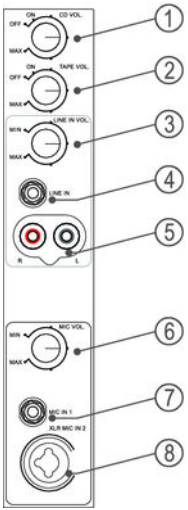
Use only LR6 AA (1.5 V) batteries or rechargeable Ni-MH batteries (nickel metal hydride). Note the correct polarity when inserting the batteries.

# 5 Connections and controls

**Rear view – overview**



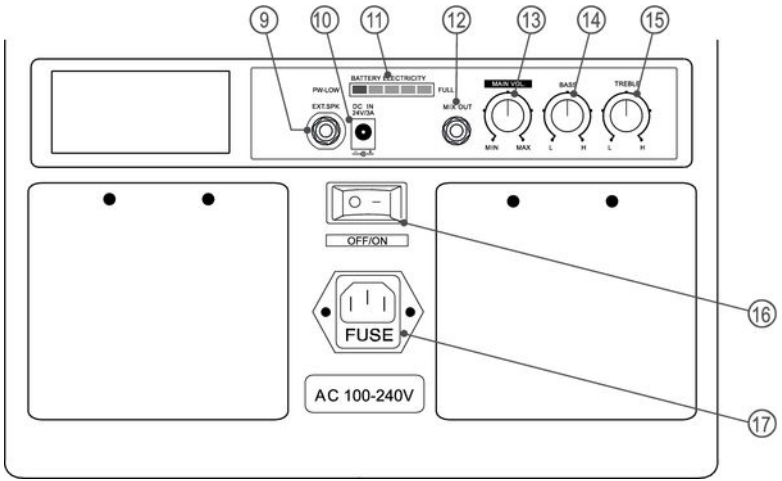
**Partial view A**



| | |
|---|---|
| 1 | *[CD VOL.]*<br>Volume control for CD playback with on / off switch. |
| 2 | *[TAPE VOL.]*<br>Volume control for cassette playback with on / off switch. |
| 3 | *[LINE IN VOL.]*<br>Volume control for the external line in. |
| 4 | *[LINE IN]*<br>1/4" jack audio input for amplification of external line level audio signals. |
| 5 | *[LINE IN R / L]*<br>RCA audio input for amplification of external line level audio signals. |
| 6 | *[MIC VOL.]*<br>Volume control for the wired microphone input. |

| | |
|---|---|
| 7 | *[MIC IN 1]*<br>Microphone input 1/4" jack. |
| 8 | *[XLR MIC IN 2]*<br>XLR microphone input (balanced) |

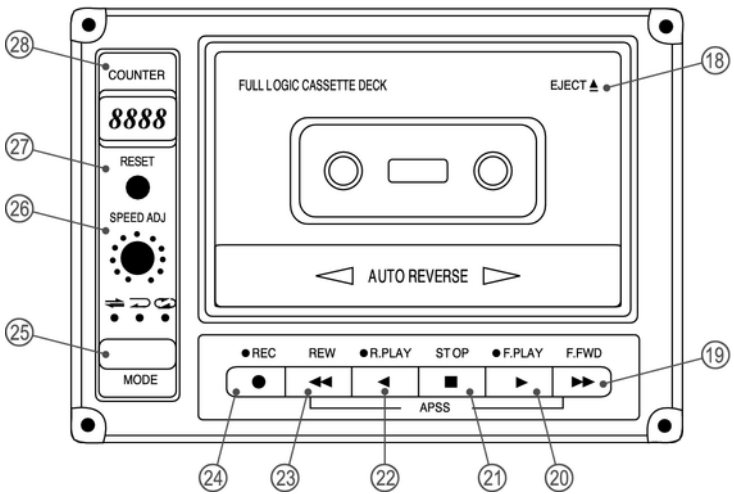
**Partial view B**



| | |
|---|---|
| 9 | *[EXT.SPK]*<br>If required, connect an external speaker here. This does not switch off the built-in speaker. |
| 10 | *[DC IN 24V/3A]*<br>Connection to operate of the unit using an external DC power source that provides 24 V⎓ with at least 3A. |
| 11 | *[BATTERY ELECTRICITY]*<br>Charge indicator for the built-in battery.<br>– when all segments are on, the battery is fully charged. If only some segments light up, that indicates the corresponding charge status.<br>– when the indicator flashes green on mains operation the battery is being charged.<br>– when the indicator lights red you should turn the external power supply on. When the red indicator turns off the device has switch off due to exhausted battery. |
| 12 | *[MIX OUT]*<br>Here you can connect another PA system or recording device. |

| | |
|---|---|
| 13 | *[MAIN VOL.]*<br>To set the overall volume (microphone and CD / cassette). |
| 14 | *[BASS]*<br>To set the bass level. |
| 15 | *[TREBLE]*<br>To set the treble level. |
| 16 | *[OFF/ON]*<br>Main switch to turn the device on and off. |
| 17 | Mains connector with fuse holder. |

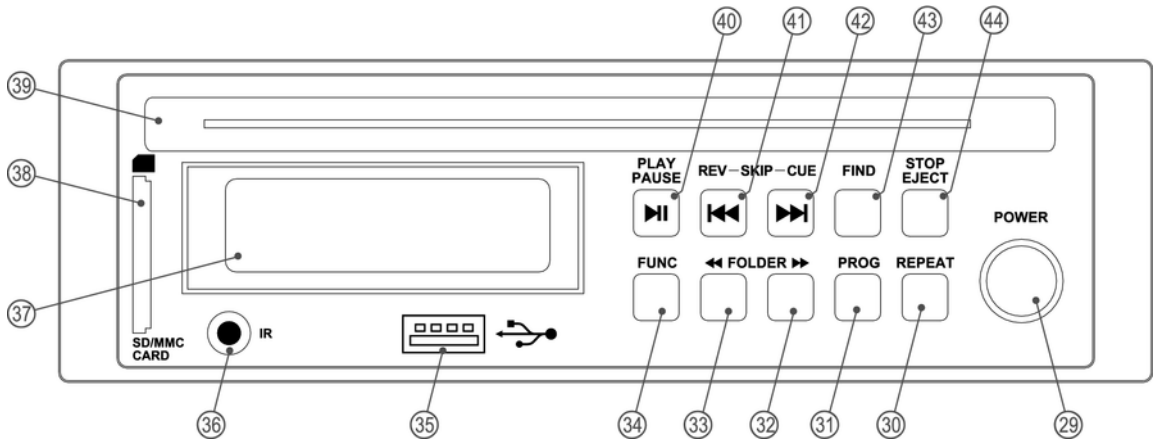
**Partial view C**



| | |
|---|---|
| 18 | *[EJECT]*<br>Press the area marked ‘EJECT’ to let the cassette compartment cover open up. |
| 19 | *[F.FWD]*<br>Winds the tape to the right reel. |
| 20 | *[F.PLAY]*<br>Starts audio playback in ‘right’ direction. |
| 21 | *[STOP]*<br>Stops playback, recording or winding. |
| 22 | *[R.PLAY]*<br>Starts audio playback in ‘left’ direction. |
| 23 | *[REW.]*<br>Winds the tape to the left reel. |

| | |
|---|---|
| 24 | *[REC]*<br>Activates the recording function, additionally press the desired PLAY button to start recording. |
| 25 | *[MODE]*<br>To select the playback mode:<br>⇌ (1) Both cassette sides are being played in an endless loop.<br>⮌ (2) One cassette side is being played once.<br>🔁 (3) Both cassette sides are being played once. |
| 26 | *[SPEED ADJ.]*<br>For setting the tape speed and thereby also the pitch of the audio playback. |
| 27 | *[RESET]*<br>Resets the tape counter to 0000. |
| 28 | *[COUNTER]*<br>4-digit LCD back lit tape counter. |

**Partial view D**



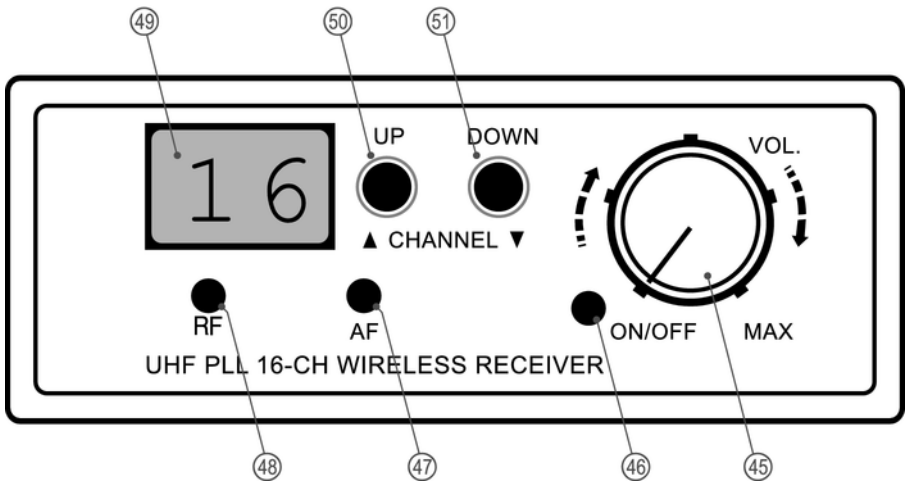
| | |
|---|---|
| 29 | *[POWER]*<br>Press this button to turn the device on (the main switch *[OFF/ON]* must be in ON position). Keep this button pushed for 2 seconds to switch the device off. |
| 30 | *[REPEAT]*<br>Press this button in MP3 or USB mode to change the playback mode as follows:<br>PLAY ALL RANDOM→ REPEAT TRACK→ REPEAT FOLDER→ REPEAT ALL→ RANDOM REPEAT→ PLAY ALL<br>Press this button in CD mode to change the playback mode as follows:<br>PLAY ALL RANDOM→ REPEAT TRACK→ REPEAT ALL→ RANDOM REPEAT→ PLAY ALL |
| 31 | *[PROG]*<br>With this button you start the Programme mode. Press STOP in this mode to delete the programme. |
| 32 | *[FOLDER]* ▶▶<br>While playback is stopped, use this button to select the following folder(s) for playback. During playback, use this button to skip to the first track of the next folder. |

| | |
|---|---|
| 33 | *[FOLDER]* ◀◀<br>While playback is stopped, use this button to select the previous folder(s) for playback. During playback, use this button to skip to the first track of the previous folder. |
| 34 | *[FUNC]*<br>Press this button to change the operating mode (CD→USB→memory card). |
| 35 | <br>Connect USB memory media here. Both flash memory and hard drives are being detected, but it can't be guaranteed that every USB memory device can be used with the device. |
| 36 | *[IR]*<br>The infrared sensor receives the signals from the remote control. |
| 37 | Display<br>Displays the CD playback status with track number and duration. |
| 38 | *[SD/MMC CARD]*<br>Insert SD or MMC cards into this slot. |

| | |
|---|---|
| 39 | CD slot<br>Here you can carefully push in a CD. After about half the way, the device takes over the further transport of the CD. |
| 40 | *[PLAY/PAUSE]* ⏯<br>Press this button to start or pause playback. |
| 41 | *[REV-SKIP-CUE]* ⏮<br>Press this button once or repeatedly to select previous tracks. If you keep this button pushed for more than 0.7 seconds during playback, a search mode backwards is enabled which allows you, for example, to find certain passages of the current track. |
| 42 | *[REV-SKIP-CUE]* ⏭<br>Press this button once or repeatedly to select the next track(s). If you keep this button pushed for more than 0.7 seconds during playback, a search mode forwards is enabled. |

| | |
|---|---|
| 43 | *[FIND]*<br>Press this button once in MP3 mode to change the search mode to 'FILE'. Press this button twice to change the search mode to 'ALBUM'. If you keep the button pressed the title is displayed. Press it again to display the ID3 tags. |
| 44 | *[STOP/EJECT]*<br>Press this button to stop playback. Press this button again to let the device eject the disc about half so you can take it out. |

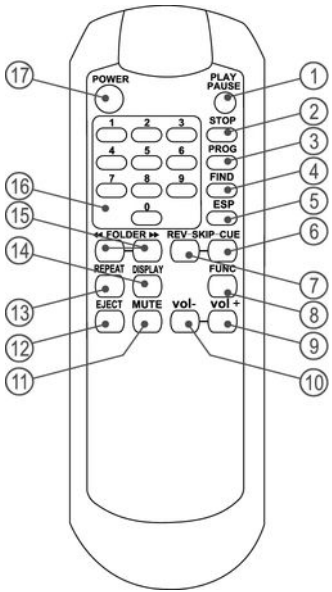
**Partial view E**



| | |
|---|---|
| 45 | *[VOL.]*<br>Turn the volume control clockwise to increase the volume. Turn it counter-clockwise to reduce volume. |
| 46 | *[ON/OFF]*<br>This indicator lights when the device in switched on. |
| 47 | *[AF]*<br>AF signal indicator: The red LED ‘AF’ lights when the microphone signal is being received. |
| 48 | *[RF]*<br>RF signal indicator: The yellow LED ‘RF’ lights when the device receives a carrier signal. |
| 49 | Display<br>Indicates the channel selected with UP / DOWN. |

| | |
|---|---|
| 50 | *[UP]*<br>To select the next channel higher. |
| 51 | *[DOWN]*<br>To select the next channel lower. |

**Remote control**



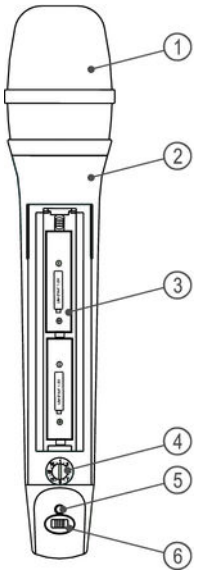
| | |
|---|---|
| 1 | *[PLAY/PAUSE]*<br>Press this button to start or pause playback. |
| 2 | *[STOP]*<br>Press this button to stop playback. |
| 3 | *[PROG]*<br>With this button you start the Programme mode. Press STOP in this mode to delete the programme. |
| 4 | *[FIND]*<br>Press this button once in MP3 mode to change the search mode to 'FILE'. Press this button twice to change the search mode to 'ALBUM'. If you keep the button pressed the title is displayed. Press it again to display the ID3 tags. |
| 5 | *[ESP]*<br>Press this button in the CD mode, then the ESP indicator lights up and the electronic anti-shock function is active. This function prevents playback drop-outs due to CD-reading errors, if the device is exposed to vibrations. The maximum bridgeable time is approximately 40 seconds. Press this button again to disable the function. |
| 6 | *[SKIP CUE]*<br>Press this button once or repeatedly to select the next track(s). If you keep this button pushed for more than 0.7 seconds during playback, a search mode forwards is enabled. |

| | |
|---|---|
| 7 | *[SKIP REV]*<br>Press this button once or repeatedly to select previous tracks. If you keep this button pushed for more than 0.7 seconds during playback, a search mode backwards is enabled which allows you, for example, to find certain passages of the current track. |
| 8 | *[FUNC]*<br>Press this button to change the operating mode (CD→USB→memory card). |
| 9 | *[VOL +]*<br>Press this button to increase volume. |
| 10 | *[VOL–]*<br>Press this button to decrease volume. |
| 11 | *[MUTE]*<br>Press this button to mute the device. Press it again to unmute. |
| 12 | *[EJECT]*<br>Press this button to let the device eject the disc about half so you can take it out. |

| | |
|---|---|
| 13 | *[REPEAT]*<br>Press this button in MP3 or USB mode to change the playback mode as follows:<br>PLAY ALL RANDOM→ REPEAT TRACK→ REPEAT FOLDER→ REPEAT ALL→ RANDOM REPEAT→ PLAY ALL<br>Press this button in CD mode to change the playback mode as follows:<br>PLAY ALL RANDOM→ REPEAT TRACK→ REPEAT ALL→ RANDOM REPEAT→ PLAY ALL |
| 14 | *[DISPLAY]*<br>When you press this button during playback of a MP3 CD the display changes as follows: Track number and playing time → total number of tracks → name of current track → total number of folders and total number of all tracks. |
| 15 | ◀◀ *[FOLDER]* ▶▶<br>While playback is stopped, use ◀◀ to select the previous folder(s) for playback, use ▶▶ for the next folder(s). During playback, use ◀◀ to switch to the first track of the previous folder, use ▶▶ to switch to the first track of the following folder. |

| | |
|---|---|
| 16 | Numeric buttons<br><br>Press one of these buttons to directly call desired tracks. |
| 17 | *[POWER]*<br><br>Press this button to turn the device on (the main switch *[OFF/ON]* must be in ON position). Keep this button pushed for 2 seconds to switch the device off. |

**Wireless microphone**




| | |
|---|---|
| 1 | Microphone head grill to prevent damage and to reduce wind and breath noise. |
| 2 | Aluminium housing |
| 3 | Battery compartment<br>Insert × 1.5 V–batteries here. |
| 4 | Channel switch<br>Select the desired transmission channel. |
| 5 | Battery status indicator<br>This indicator flashes red when the batteries are almost exhausted. |
| 6 | On / off switch<br>Switches the voltage supply for the microphone on and off. |

# 6 Technical specifications

| **Amplifier / speaker** | |
|---|---|
| Inputs | 1 × XLR / 1/4" jack combo socket for microphone input |
| | 1 × 1/4" phone socket for microphone input |
| | 1 × 1/4" phone socket for line input |
| | 2 × RCA sockets for additional signal input, e.g. for CD players or similar line level devices. |
| Outputs | 1 × 1/4" phone socket for line output |
| | 1 × 1/4" phone socket for speaker output |
| Speaker | 8" wide range speaker with integrated tweeter |
| Frequency range | 50 Hz … 18 kHz (±3 dB) |
| Output power | 75 W |

| **Radio link** | |
|---|---|
| Carrier frequency | UHF band (863 MHz … 865 MHz) |
| Modulation type | Frequency modulation (FM) |
| Signal-to-noise ratio | > 105 dB |
| Transmission power of the wireless microphone | approx. 10 mW |
| THD | < 0.5 % |

| **General** | |
|---|---|
| Voltage supply | AC 230 V ~ , 50/60 Hz |
| | 2 × 12 V lead-gel rechargeable batteries (each 5 Ah), maintenance-free |
| Fuse | 5 mm× 20 mm, 5 A, 250 V, slow-blow |
| Operating time per battery charge | 4 h … 6 h |
| Charging time | approx. 8 h |

| | |
|---|---|
| Dimensions (W × H × D) | 330 mm × 440 mm × 240 mm |
| Weight | 13 kg |

# 7 Plug and connection assignment

**Introduction**

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

**Balanced and unbalanced transmission**

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

**1/4" TS phone plug (mono, unbalanced)**

| | |
|---|---|
| 1 | Signal |
| 2 | Ground, shielding |

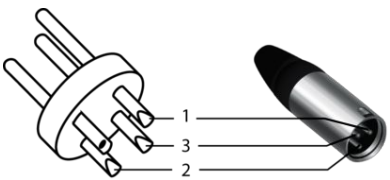
**1/4" TRS phone plug (mono, balanced)**

| | |
|---|---|
| 1 | Signal (in phase, +) |
| 2 | Signal (out of phase, –) |
| 3 | Ground |

**Three-pole 1/8" mini phone jack (stereo, unbalanced)**

| | |
|---|---|
| 1 | Signal (left) |
| 2 | Signal (right) |
| 3 | Ground, shielding |

**XLR plug (balanced)**




| | |
|---|---|
| 1 | Ground, shielding |
| 2 | Signal (in phase, +) |
| 3 | Signal (out of phase, –) |

**RCA connection**

Drawing and table indicate the pin assignment of an RCA plug.

| | |
|---|---|
| 1 | Signal |
| 2 | Ground, shielding |

# 8 Cleaning

**Device components**

Clean the device components that are accessible from the outside regularly. The cleaning frequency depends on the operating environment: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the device components.

- Clean with a dry soft cloth.
- Stubborn dirt can be removed with a slightly dampened cloth.
- Never use solvents or alcohol for cleaning.

**Fan grids**

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

# 9 Protecting the environment

**Disposal of the packaging material**

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

**Disposal of batteries**

Batteries must not be disposed of as domestic waste or thrown into fire. Dispose of the batteries according to national or local regulations regarding hazardous waste. To protect the environment, dispose of empty batteries at your retail store or at appropriate collection sites.

**Disposal of your old device**

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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